

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

This declaration is of the following type:

- ☒ original
- ☐ divisional
- ☐ continuation
- ☐ continuation-in-part

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

"RELIABILITY BARRIER INTEGRATION FOR CU APPLICATION"

SPECIFICATION IDENTIFICATION

The specification of which:

- ☒ filed herewith;
- ☐ was filed on _____, under Serial No. _____, executed on even date herewith; or
- ☐ Express Mail No. _____ (Serial No. not yet known)
and was amended on _____ (if applicable)
- ☐ was described and claimed in PCT International Application No. _____
filed on _____ and as amended under PCT Article 19 on _____.

ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56,

and which is material to the examination of this application; namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

- ☐ In compliance with this duty there is attached an Information Disclosure Statement in accordance with 37 CFR §1.98.

PRIORITY CLAIM (35 U.S.C. §119)

I hereby claim foreign priority benefits under Title 35, United States Code, §119, of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below, and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

☒ No such applications have been filed.

☐ Such applications have been filed as follows:

- A. Prior foreign/PCT application(s) filed within 12 mos. (6 mos. for design) prior to this application, and any priority claims under 35 U.S.C. §119

| <u>Country/PCT</u> | <u>Application No</u> | <u>Date Filed</u> | <u>Priority Claimed</u> |
|--------------------|-----------------------|-------------------|--|
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No |

- B. All foreign application(s), if any, filed more than 12 mos. (6 mos for design) prior to this U.S. application

Country:

Application No:

Filing date:

PRIOR CLAIM (35 U.S.C. §120)

I hereby claim the benefit under Title 35, United States Code, Section 120, of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose information that is material to the examination of this application (namely, information where there is substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

☐ No such applications have been filed

☐ Such application have been filed, as follows:

| <u>Serial No.</u> | <u>Filing Date</u> | <u>Status</u> | | |
|-------------------|--------------------|-----------------|----------------|------------------|
| | | <u>Patented</u> | <u>Pending</u> | <u>Abandoned</u> |
| (None) | | | | |

POWER OF ATTORNEY

I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

| | |
|----------------------|-------------------------|
| Michael L. Sherrard | Registration No. 28,041 |
| Peter J. Sgarbossa | Registration No. 25,610 |
| Donald Verplancken | Registration No. 33,217 |
| Lawrence Edelman | Registration No. 25,226 |
| Michael B. Einschlag | Registration No. 29,301 |
| Leslie A. Weise | Registration No. 36,305 |
| Raymond Kam-On Kwong | Registration No. 37,165 |
| James C. Wilson | Registration No. 35,412 |
| B. Todd Patterson | Registration No. 37,906 |
| Jeffrey L. Streets | Registration No. 37,453 |

Send correspondence to:

Patent Counsel
Applied Materials, Inc.
P. O. Box 450A
Santa Clara, CA 95052

Direct telephone calls to:

B. Todd Patterson
Patterson & Streets, L.L.P.
3040 Post Oak Blvd., Suite 430
Houston, Texas 77056
(713) 623-4844

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Sec. 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full name of sole or first inventor: FUSEN CHEN

Inventor's signature: [Signature] Date: 4/22/97

Residence: Cupertino, California 95014

Post Office Address: 10390 Stern Avenue
U.S.A.

Country of Citizenship: U.S.A.

Full name of second inventor: LIANG-YUH CHEN

Inventor's signature: [Signature] Date: 4/21/97

Residence: San Jose, California 95131

Post Office Address: 1304 Fairway Entrance Drive

Country of Citizenship: Taiwan

Full name of second inventor:

MOSHE EISENBERG

Inventor's signature:

Moshe Eisenberg

Date:

5/5/47

Residence:

Haifa, 34789

Post Office Address:

32 Soroka Street, Israel

Country of Citizenship: Israel

POWER OF ATTORNEY

I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

| | |
|----------------------|-------------------------|
| Michael L. Sherrard | Registration No. 28,041 |
| Peter J. Sgarbossa | Registration No. 25,610 |
| Donald Verplancken | Registration No. 33,217 |
| Lawrence Edelman | Registration No. 25,226 |
| Michael B. Einschlag | Registration No. 29,301 |
| Leslie A. Weise | Registration No. 36,305 |
| Raymond Kam-On Kwong | Registration No. 37,165 |
| James C. Wilson | Registration No. 35,412 |
| B. Todd Patterson | Registration No. 37,906 |
| Jeffrey L. Streets | Registration No. 37,453 |

Send correspondence to:

Patent Counsel
Applied Materials, Inc.
P. O. Box 450A
Santa Clara, CA 95052

Direct telephone calls to:

B. Todd Patterson
Patterson & Streets, L.L.P.
3040 Post Oak Blvd., Suite 430
Houston, Texas 77056
(713) 623-4844

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Sec. 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full name of sole or first inventor: FUSEN CHEN

Inventor's signature: _____ Date: _____
Residence: Cupertino, California 95014
Post Office Address: 10390 Stern Avenue
U.S.A.

Country of Citizenship: Taiwan

Full name of second inventor: LIANG-YUH CHEN

Inventor's signature: _____ Date: _____
Residence: San Jose, California 95131
Post Office Address: 1304 Fairway Entrance Drive

Country of Citizenship: Taiwan

PRIORITY CLAIM (35 U.S.C. §119)

I hereby claim foreign priority benefits under Title 35, United States Code, §119, of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below, and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

☒ No such applications have been filed.

☐ Such applications have been filed as follows:

- A. Prior foreign/PCT application(s) filed within 12 mos. (6 mos. for design) prior to this application, and any priority claims under 35 U.S.C. §119

| <u>Country/PCT</u> | <u>Application No</u> | <u>Date Filed</u> | <u>Priority Claimed</u> |
|--------------------|-----------------------|-------------------|-------------------------|
|--------------------|-----------------------|-------------------|-------------------------|

| | | | | |
|--------------------------|--------------------------|-----|--------------------------|----|
| <input type="checkbox"/> | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
|--------------------------|--------------------------|-----|--------------------------|----|

| | | | | |
|--------------------------|--------------------------|-----|--------------------------|----|
| <input type="checkbox"/> | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
|--------------------------|--------------------------|-----|--------------------------|----|

| | | | | |
|--------------------------|--------------------------|-----|--------------------------|----|
| <input type="checkbox"/> | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
|--------------------------|--------------------------|-----|--------------------------|----|

- B. All foreign application(s), if any, filed more than 12 mos. (6 mos for design) prior to this U.S. application

Country:

Application No:

Filing date:

PRIOR CLAIM (35 U.S.C. §120)

I hereby claim the benefit under Title 35, United States Code, Section 120, of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose information that is material to the examination of this application (namely, information where there is substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

☐ No such applications have been filed

☐ Such application have been filed, as follows:

| <u>Serial No.</u> | <u>Filing Date</u> | <u>Status</u> | | |
|-------------------|--------------------|-----------------|----------------|------------------|
| | | <u>Patented</u> | <u>Pending</u> | <u>Abandoned</u> |

(None)

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

This declaration is of the following type:

- ☒ original
- ☐ divisional
- ☐ continuation
- ☐ continuation-in-part

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

"RELIABILITY BARRIER INTEGRATION FOR CU APPLICATION"

SPECIFICATION IDENTIFICATION

The specification of which:

- ☒ filed herewith;
- ☐ was filed on _____, under Serial No. _____, executed on even date herewith; or
- ☐ Express Mail No. _____ (Serial No. not yet known)
and was amended on _____ (if applicable)
- ☐ was described and claimed in PCT International Application No. _____
filed on _____ and as amended under PCT Article 19 on _____.

ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56,

and which is material to the examination of this application; namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

- ☐ In compliance with this duty there is attached an Information Disclosure Statement in accordance with 37 CFR §1.98.

Full name of second inventor:

MOSHE EIZENBERG

Inventor's signature: _____ Date: _____

Residence: Haifa, 34759
Post Office Address: 32 Soroka Street

Country of Citizenship: Israel